

## Recombinant Mouse Interleukin-5 (rm IL-5)

**Synonyms:** T-cell replacing factor (TRF), Eosinophil differentiation factor (EDF), B cell differentiation factor II (BCDFII).

**Introduction:** The protein encoded by this gene is a cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. This cytokine is a main regulator of eosinopoiesis, eosinophil maturation and activation. The elevated production of this cytokine is reported to be related to asthma or hypereosinophilic syndromes. The receptor of this cytokine is a heterodimer, whose beta subunit is shared with the receptors for IL-3 and GM-CSF. This gene, together with those for IL-4, IL-13 and GM-CSF, form a cytokine gene cluster on chromosome 5. This cytokine, IL-4, and IL13 are found to be regulated coordinately by long-range regulatory elements spread over 120 kilobases on chromosome 5q31.

**Description:** Recombinant murine IL-5 produced in *E.Coli* is a dimeric, non-glycosylated polypeptide chain containing 2 x 113 amino acids forming a disulfide linked homodimer and having a molecular mass of 26.2 kDa. The rm IL-5 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a concentrated solution containing 20mM Sodium Phosphate pH-7.5. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rm IL-5 in steril H<sub>2</sub>O not less than 100µg/ml which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rm IL-5 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm IL-5 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 97.0% as determined by RP-HPLC and by SDS-PAGE.

**Amino Acid Sequence:** MEIPMSTVVK ETLTQLSAHR ALLTSNETMR LPVPTHKNHQ LCIGEIFQGL DILKNQTVRG GTVEMLFQNL SLIKKYIDRQ KEKCGEERRR TRQFLDYLQE FLGVMSTEWA MEG.

**Biological Activity:** The ED<sub>50</sub> as determined by the dose-dependant stimulation of the proliferation of TF-1 cells was found to be 1.7 ng/ml, corresponding to a specific activity of 588,235 IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	12340052
<i>medium</i>	10 µg	Cat.N°	12340053

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